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STATEWIDE PLANNING FOR NURSING EDUCATION.

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SOUTHERN REGIONAL EDUCATION BOARD, ATLANTA, GA.

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NEEDS IN NURSING EDUCATION ARE OUTLINED IN 5 IMPERATIVES--(1) AN IMMEDIATE NEED FOR COMPREHENSIVE PLANNING (BECAUSE OF UP TO 50 PERCENT VACANCIES IN NURSING POSITIONS IN SOME HOSPITALS, USE OF SUBPROFESSIONALS EXCEEDING THE SAFETY LEVEL, AND EXTREME SHORTAGE OF NURSES FOR POSITIONS OF HIGHEST RESPONSIBILITY, AND FUTURE OVERTAXING OF THE SUPPLY DUE TO NEW HEALTH PROGRAMS, BURGEONING POPULATION, INCREASING LONGEVITY, ETC.), (2) A NEED FOR STATEWIDE PLANNING DONE BY A COMMITTEE ON COMPREHENSIVE PLANNING FOR NURSING EDUCATION APPOINTED BY (IDEALLY) THE STATE'S COORDINATING BOARD OF HIGHER EDUCATION, (3) PLANNING FOUNDED ON A CLEAR UNDERSTANDING OF EXISTING CONDITIONS AND FUTURE TRENDS IN NURSING, (INCLUDING MOVING AWAY FROM "PROCEDURES-CENTERED NURSING" IN WHICH SERVICES ARE BROUGHT TO PATIENTS FROM AN ASSEMBLY LINE WHILE NURSES ARE OVERLY ENGAGED IN PAPER WORK AND PATIENTS ARE CARED FOR BY AIDES), IN HIGHER EDUCATION, AND IN OTHER SERVICES AND PROFESSIONS, (5) PLANS ORIENTED TOWARDS PRODUCING PROMPT ACTION AND MEANINGFUL CHANGES (INCLUDING EXPLICIT STANDARDS OF EXCELLENCE). AN EXTENDED SECTION ON PLANNING, INCLUDING GOAL SETTING, IMPLEMENTATION, AND EVALUATION IS INCLUDED. (AF)

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Statewide Planning for Nursing Education

by LUCILE PETRY LEONE

U.S. DEPARTMENT OF HEALTH, EDUCATION & WELFARE
OFFICE OF EDUCATION

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SOUTHERN REGIONAL EDUCATION BOARD

Statewide Planning for Nursing Education

by LUCILE PETRY LEONE

1967

SOUTHERN REGIONAL EDUCATION BOARD
130 Sixth Street, N.W. • Atlanta, Georgia 30313

IMPERATIVES FOR PRODUCING MORE AND BETTER NURSING PERSONNEL

ONE

Comprehensive planning for more and better nursing education must begin at once.

TWO

Planning for improved, expanded nursing education must be done on a statewide basis.

THREE

An official state body must be responsible for planning and action to improve and expand nursing education.

FOUR

Planning must be founded on a clear understanding of existing conditions and future trends in 1) nursing, 2) higher education, and 3) other health services and professions.

FIVE

The planning body's efforts must be geared to producing prompt action and meaningful changes in nursing education.

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INTRODUCTION

The mission of this publication is to focus attention on the importance of planning for nursing education within statewide educational programs, and to provide guidance to those involved in such planning. It is being published at this time because the critical and growing need for nurses cannot be met without effective statewide planning for nursing education.

The shortage of nursing personnel is most severe in the South, and the situation is already under scrutiny in several Southern states. It is natural that there should be confusion as well as interest, misunderstandings as well as good intentions.

Educational planners are frequently baffled by the complexities of nursing education because of the variety of programs which prepare nurses for service; because some nursing education programs are administered by agencies outside the sphere of most educational planning bodies; and because such a large number and variety of individuals, agencies, institutions, and organizations contribute to and are affected by the nurse supply.

This publication is addressed to those who might be able to initiate and carry forward effective planning for nursing education; college and university faculties and administrators; members of state boards of education and higher education; nurses in leadership positions; and state officials who are concerned by, but may not be informed about, the complexities of nursing education.

Data and details have been kept to a minimum. The emphasis has been placed on providing a framework for thinking and for decision-making. This publication states the essentials of sound planning, suggests some general procedures, and raises the questions which must be resolved by planners in terms of each state's own needs and resources.

The Southern Regional Education Board is grateful to Mrs. Lucile Petry Leone for preparing this report and for bringing to bear upon this topic her breadth of vision of nursing and concern about the health care of people. We are indebted to the W. K. Kellogg Foundation for the financial support which makes possible this publication.

WINFRED L. GODWIN
Director
Southern Regional Education Board

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A large amount of material, published and unpublished, was reviewed in preparation of this brief statement on *Statewide Planning for Nursing Education*. It would be impossible to thank all those whose thinking about the process of planning or about the future of health or education helped to mold this simple statement.

Elizabeth Kemble and Faye Pannell spent two days at the outset assisting me to explore the task of preparing a statement on planning for nursing education. These and many other deans and directors of nursing education programs shared with me the knowledge of evolution of their programs and their long-range plans.

Reports on nursing needs and resources in many states were reviewed and participants were interviewed. The evolution from heterogeneous planning to coordinated planning for nursing education in the state of North Carolina became a particularly valuable example.

Staff publications of the Public Health Service of the U. S. Department of Health, Education, and Welfare were sources of information on the economics of health; the bearing of population growth on demands for health services; and predictions of health personnel required for health programs, facilities on the horizon, and implementation of health advances. The Division of Nursing of the Public Health Service provided particularly pertinent information.

Staff publications of the National League for Nursing and the American Nurses' Association were similarly helpful on trends, perspectives, positions of the nursing profession, and goals of nursing education set for the purpose of meeting the future nursing needs of people.

Publications of the American Hospital Association, the American Public Health Association, and the American Medical Association threw light on problems of the future. Publications related to plan-

ning for medical education, including those of the Association of American Medical Colleges, were particularly helpful.

The literature on master planning for higher education in states and reports of states with evolving master plans gave form to my thinking and hope that in nursing we might condense years of "unplanned planning" into a briefer span, and undertake earlier effective planning for nursing education by learning the lessons of these experiences.

Contributions to planning for higher education made by regional boards of higher education and their nursing councils showed these up as examples of productive cooperation and as sources of advice for state planners of nursing education.

Gratitude is expressed for all of those above who, through spoken or printed word, helped in my formulation of this view of statewide planning for nursing education.

My greatest thanks are given to A. J. Brumbaugh and to Helen Belcher, of the Southern Regional Education Board, whose wisdom seems boundless and whose guidance was priceless. Special thanks are also given to Mrs. Dorothy Sparer, whose editorial assistance brought brevity and clarity to this statement which I could not have achieved alone.

LUCILE PETRY LEONE

ABOUT THE AUTHOR

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Mrs. Leone holds honorary doctoral degrees from eight universities and has been awarded honors for achievements in several fields. She has a continuing involvement in international health nursing. From 1959 to 1963, she served as president of the National League for Nursing.

Chapter I

The Imperatives for Planning and Action

IMPERATIVE ONE

Comprehensive planning for more and better nursing education must begin at once.

THE NEED FOR MORE NURSING PERSONNEL

Shortages are acute in all health professions and related occupations: medicine, dentistry, medical technology, physical and occupational therapy, dental hygiene, nutrition, medical and psychiatric social work, biostatistics, medical record librarianship, and many others.

Nurses constitute the largest group in the health professions. But although nursing has about a million practitioners and more than 2,000 institutions in its educational system, today there are gaps in nursing services everywhere.

Only a few of the nation's 8,000 hospitals have a full complement of registered nurses. Up to 50% of positions are vacant in some hospitals. Wings of some hospitals are closed and new plans are being held back for lack of nurses. And supplementary personnel with sub-professional training are being used in many hospitals in proportions which exceed the limits of safety.

Shortages of nurses trained for positions of highest responsibility are particularly tragic. Administrators of hospitals and health agencies too often search in vain for nurses qualified to direct nursing departments. New programs cry out for nurse leadership. And new concepts of nursing require an even greater number of creative implementors. Piracy is continually practiced among institutions, all of which must draw leadership from the small national pool of nurses with advanced education.

A large proportion of the more than 2,000 schools preparing registered and practical nurses cannot expand because of shortages of nursing teachers. Many faculty positions are filled by nurses scarcely one jump ahead of their students. The most acute shortage of all is found among nurses trained to establish and teach in graduate programs.

Similar shortages block progress in all other fields in which nurses are engaged: public health, school and occupational health programs, as well as nursing homes.

Moreover, nursing personnel shortages will grow with increasing speed because of nationwide developments affecting health services, and because of conditions within the nursing education system.

New health programs and the increased demand for them will create marked increases in the already overtaxed supply of nursing personnel. Research in the health sciences will continue, and people will demand the practical benefits of new knowledge.

Demands for nursing specialists are being accelerated by new nationwide programs like those involving heart disease, cancer and stroke, mental health, mental retardation, maternal and child health, the aging, and chronic diseases.

Demand for nursing personnel will be increased not only by a burgeoning population, but because a higher proportion of that population is seeking health services. Each year a higher percentage of the gross national product is spent on health, and this trend is destined to increase for several reasons.

An increasingly better educated population is becoming more convinced that science can solve health problems, that good health is not only an economic asset but a human right. At the same time, the trend toward prepayment of health care is likely to increase the demand for it.

Another important feature of the increased population of the future is its longevity. Care of the aged, the infirm, or those with chronic illnesses will demand an ever larger percentage of the nursing supply.

THE NEED FOR PLANNING NURSING EDUCATION

Conditions within the nursing education system are widening the gap between supply and demand for nurses. Nursing programs are not attracting the desired proportion of young college-age people, and would not have the capacity to accommodate them if they did attract them. Graduate programs are not producing enough teachers and key specialists. And studies of better ways of utilizing scarce nursing personnel are not yielding results fast enough.

The qualitative and quantitative gaps in nursing services will become more threatening to the well-being of people, and will continue to cause economic loss unless planned action is taken at once. The first point of attack must be nursing education: its quality, its capacity, and the balance among the components of the nursing education system.

Decisions are being made about nursing education every day—decisions to start new programs, to change old programs, or to close schools. Without overall, long-range planning, these decisions are being made without knowledge of what future needs will be or of the plans of other institutions.

For example:

- A university establishes a new medical school. Should that university start a bachelor's degree program in nursing, too?

- Two or 20 new community colleges are being planned in a state. In how many of these and in which ones should there be associate degree programs in nursing? In which should there be pre-nursing programs from which students may transfer to bachelor's degree nursing programs in colleges and universities?

- The board of a hospital operating a nationally-accredited hospital school of nursing (the only school in one section of a state) is concerned about rising costs and a decline in quality of the program. Should the board decide to close the school? What alternative actions are possible?

- A state expands its vocational and technical education programs. How many more programs to prepare practical nurses should it plan for?

- A private college considers education of nurses one of its obligations. How many nurses should it plan to prepare over the next 20 years?

- A state board of higher education or a state coordinating council for education is confronted with proposals for new nursing education programs from four colleges and universities. Which of these institutions should it encourage to proceed? What other institutions should be urged to undertake programs?

Planning for nursing education must begin now if we are to avoid haphazard development or imbalance, expensive duplication, and persistent gaps in services. Human and financial resources must be spent wisely to the end that tomorrow people will have the health services they need, and youth will have the educational opportunities it seeks.

IMPERATIVE TWO

Planning for improved, expanded nursing education must be done on a statewide basis.

ADVANTAGES OF STATEWIDE PLANNING

A state is a natural area for planning for nursing education. Almost all the information needed for planning, and the financial resources and political power needed to implement plans, are available on a statewide basis.

In addition, students generally seek education in their home state and then practice nursing there. Every state, therefore, has an obligation to train its own manpower and do its share to prepare nurses for the national pool from which all employers also draw. Debtor states—those that use more nurses than they prepare—are a drag on the total supply.

A state is generally acknowledged to be large enough to warrant planning, yet small enough

to be viewed as a whole. Population is projected by each state with distributions by age groups. This is significant for planning because some age groups demand more nursing care, and the college-age group is the major source for students.

All states project their needs for beds in hospitals and nursing homes, and some predict needs for other health services. Statistics and master plans for higher education, for education in other health professions, and for health services are organized on a statewide basis.

State boards of nursing set minimum legal standards for the profession. Professional nursing organizations and voluntary associations, also organized on a statewide basis, can provide valuable information as well as new ideas and support for planning and action.

Finally, some of the actions which are needed to implement plans will be taken by the state's legislature, its executive departments, and will be of concern to its governor.

Each state has its own distinct set of problems and opportunities, strengths and weaknesses, assets and liabilities, human and economic resources. Each is at a different stage of development, and each has its own set of aspirations for its citizens. Each must therefore choose the methods best suited to its circumstances to reach the goals it sets.

PLANNING FOR OTHER GEOGRAPHIC AREAS

Parts of states, such as metropolitan areas, may want to make plans for nursing education, but these should be made within the framework of the state plan.

Regional planning may be required for master's degree programs in nursing, since not every state has the facilities or resources to provide a full gamut of graduate programs. Doctoral programs in nursing will probably have to be planned on a national basis, since the resources needed for these are still more specialized and more scarce. But planning and implementation, even when regional or national in scope, must be based upon state planning.

State planners may also find national studies of resources and needs for nursing services and education helpful as a background for state planning. But these studies, too, must be used by state planners to suit the circumstances of their own state.

IMPERATIVE THREE

An official state body must be responsible for planning and action to improve and expand nursing education.

Planning for nursing education is best done by a body with official status in state government,

largely because such an arrangement has the greatest potential for turning plans into action. It has the wherewithal, the status, and the power to accomplish what it sets out to do.

An official state body has the potential ability to integrate its plans with other statewide efforts in health and education; to attract an expert staff; to have access to information which will permit a comprehensive view of the problems; to have adequate financial support; and to have clear channels for submitting its recommendations.

ORGANIZATION OF A PLANNING BODY

The most promising arrangement is to have a committee on comprehensive planning for nursing education created and appointed by the state's coordinating board of higher education. The committee would report to the coordinating board, and its recommendations would therefore carry the weight of the board. The committee would also have access to the board's other plans for higher education and could integrate its own plans with these.

States are moving rapidly toward planning for higher education, and an increasing number have created such coordinating boards to coordinate the plans of the governing boards of individual institutions or systems of colleges and universities in the state. Such boards are composed primarily of citizen members for the purpose of formulating, coordinating and supervising long-range plans for all higher education in the state—a purpose very similar to that which is required in nursing education.

Functions and Objectives

The objectives of a nursing education committee of a coordinating board would be to meet the goals set in terms of numbers of nurses needed, and promote high quality education in order to produce the quality of nursing services needed. In addition, the committee should strive to:

- avoid costly duplication of programs
- insure strategic location of new and expanding programs
- create and maintain balance among various kinds of education programs
- provide a balanced supply of all kinds of nurses needed.

Although the committee will have official status, it must be cognizant throughout of the roles of private institutions in nursing education. Functions of the committee for comprehensive planning should include:

- determining statewide needs for nursing personnel of all kinds on a succession of target dates
- planning an educational system which will provide the needed personnel, with specific recommendations about individual institutions and their capacities

- recommending the means of attracting students (through scholarships and other methods), and sources of financial support for capital and operating expenses of programs
- maintaining continued planning and evaluation of progress.

Staff and Participants

A paid staff is an absolute requirement of a planning body. Staff members should be expert in the following types of work:

- compiling and analyzing data
- presenting and documenting issues
- identifying problems to be studied, and conducting these studies
- preparing clear, convincing reports to the action body, other boards, and the public
- creating cooperative relations with other planning groups, institutions, leaders in the state, and with communications media.

The committee should include in its considerations all kinds of educational and service institutions—public and private—involved in nursing education and services, whether or not these come under the purview of the parent coordinating board. Although the committee itself should be relatively small (because of the frequency of its meetings and its responsibility for arriving at decisions), it should manifest the breadth of its concern for nursing through an advisory council and working groups assigned to special tasks.

Participation in statewide planning should include leaders from public and private institutions; leaders in each kind of nursing education and service; leaders of related health professions and in various other fields of health work; leaders in technical, vocational, and higher education; leaders in secondary education; and leaders among students of nursing.

Some will participate as members of the planning body; some will be members of committees of the planning body; some can serve as advisors to the body or its committees; and still others can serve as sources of information on specific problems.

Many of those who participate in the planning will later participate in action based on those plans, and will influence others to act on them. In any case, people asked to serve on the planning committee should be chosen for their knowledge and judgment, *not* as representatives of organizations or groups.

In many states, nursing organizations* have carried on surveys of current nursing resources and future needs. These provide valuable information from which trends may be noted.

*See Appendix B for a descriptive listing of nursing organizations.

Some studies contain recommendations for action which should be considered.

State nursing organizations may be able to help the planning body in undertaking some of the data collection and analysis needed. In some states, the state nursing organizations have been the instigating force for the creation of an official planning body for nursing education.

The National League for Nursing can supply many helpful materials, including statistical reports on schools which are valuable for noting trends and making comparisons between states. Consultation service is also available from the League.

The U. S. Public Health Service makes and reports useful studies, and provides data valuable to planners, as well as consultation service on many phases of nursing.

The U. S. Office of Education reports studies and information on vocational and technical education in nursing, as well as in higher education. And regional education boards which have projects in nursing education [1] are sources of advice and information on planning in higher education, including nursing, in their respective regions.

The Committee's Work

In spite of the many sources of help and information available to the staff, planning for nursing education in a state will be extremely demanding of time and effort at first, particularly if systems for compiling needed data must be originated. But once a first plan is made and accepted by the coordinating board and others, the planning committee's activities will level off to a less hectic pace.

The committee will then be responsible for keeping the plan up to date in light of progress made and new developments, and for assisting in the supervision and implementation of long-range plans. Further new studies may also be needed to yield information on making plans more effective.

AN ALTERNATIVE PROCEDURE

In states which do not yet have a coordinating board for higher education, a council or commission appointed by the governor or created through legislative action could make comprehensive plans for nursing education.

A serious drawback of such an arrangement is that the planning body may not last any longer than the administration which created it. Or it may find its reports being submitted to or acted upon by succeeding governors and legislatures whose opinions and enthusiasm for planning may differ from the preceding ones.

Since this situation could jeopardize the implementation of plans, and mean a waste of time and effort expended, certain safeguards should

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[1] See Appendix A for chapter notes.

be built into the charge of a governor-appointed commission for planning.

The planning body must have a clear definition of its functions, and its mandate must specify which bodies or persons are to receive its recommendations. Responsibilities for action by the recipients of recommendations should also be clear.

The mandate of the commission should provide for continued planning, and for the inclusion of planning for nursing education among the functions of a coordinating board for higher education, when one is created in the state.

CHARACTERISTICS OF A PLANNING BODY

Regardless of how it is set up, the planning body is created to obtain optimum use of scarce financial and human resources, and to accomplish commonly accepted goals in the most effective way possible.

To accomplish its task, the planning body should have clearly marked boundaries for its work—preferably comprehensive ones. It should also have clearly defined channels for implementation of plans.

The planning body should be able to assume a strong commitment to forward-looking nursing education in the state, coupled with a commitment to increasing financial support for education which will improve health services.

Finally, a planning body should be free of political pressures in respect to appointment of members, and in making decisions for planning and action.

Sound state planning gives focus to thinking and action in other quarters as well. The sounder the action instigated by the planning body, the more orderly and more creative the actions planned by other groups will be. Actions which are not part of the plan will nevertheless feed back to the planning body and add perspective to its deliberations.

Some examples of these actions might be:

- organized cooperative efforts by teaching staffs of each kind of program to improve curriculums, learning and teaching methods, and other aspects of education
- collaborative research among institutions
- cooperative projects on utilization of various kinds of nursing personnel
- participation of schools of nursing in regional and national efforts to improve nursing education, or to improve the criteria of state approval and national accreditation.

IMPERATIVE FOUR

Planning must be founded on a clear understanding of existing conditions and future trends in

1) nursing, 2) higher education, and 3) other health services and professions.

NURSING

Changing Concepts of Nursing Practice

Nursing care and services are in a stage of rapid transition. Nursing is no longer a matter of merely following physicians' orders and keeping patients comfortable in hospital beds, important as these are.

New concepts will continue to be formulated and find their way into practices. Some of these views are contrary to "procedure-centered nursing" in which services are brought to patients from an assembly line, and nurses are overly engaged in paper work, while aides care for patients—a condition still too frequently found.

Nursing should be focused on people and their problems—on moving patients toward the therapeutic goals set by physicians and, in part, by nurses. Some nursing concepts are changing, and the changes are improving the quality of patient care in some communities. It is the task of planners to devise a system of education which will take into account such evolving concepts. Among them are:

Using clinical judgment—A professional nurse should assess the nursing needs of each patient, design care to suit these needs, and blend her activities with those of other nursing personnel into a unified pattern of care. She should prevent ill health and help convalescing patients reach their highest level of health, in addition to caring for the sick.

Providing continuity of care—Nurses must help to provide an unbroken pattern of care as patients move from home to clinic or physician's office, to the hospital, to the nursing home, and back home again. Nurses must weave into this pattern the services of the community's health and social agencies.

Motivating patients—Nurses must help patients and their families understand the illness and the treatment so that the patient can use his physical and emotional energies to contribute toward his own recovery.

Making precise observations—Nurses must note, with scientific precision, how patients respond to complex therapies. The psychological and physical differences are often minute, and are often influenced by social and economic factors.

Preserving personalized care—Nurses must master the use of intricate electronic devices, computerized methods and other complicated techniques, while keeping a special human touch for patients who are surrounded by these impersonal machines.

Encouraging people to seek health care—Nurses, particularly those in public health services, must find ways of reaching and motivating

persons who need health care but who do not or cannot seek it out.

Working on a health team—Nurses must work with others in the health professions to solve an individual's health problems. They also participate in community planning for nursing and health.

Carrying on research—Nurses must participate in studies designed to evaluate and improve nursing practices.

Accepting medical functions—As the practice of medicine moves on to new frontiers, and new concepts of specialized medical care evolve, nurses must be ready to accept functions which were formerly considered to be in the province of physicians.

Fields of Nursing Employment

Planners should be aware of and plan education for all fields of nursing employment. These range from large metropolitan to small rural hospitals, out-patient departments to doctors' offices, industrial and school health programs to private duty, public health nursing to schools of nursing, and state mental hospitals to community mental health programs.

In most fields of nursing there are positions with different levels of responsibility. The first level—direct care of patients—encompasses a wide range of activities, from doing for patients the simple things they would ordinarily do for themselves, to carrying out intricate scientific processes with the most sophisticated psychological sensitivity. This spectrum of direct care is provided by aides, licensed practical nurses, and registered nurses.

Supervision and administration of direct care is the job of nurses with higher levels of responsibility. Graduate education is needed for personnel at all levels beyond the first level of direct care.

The administrator of nursing services in a large hospital or public health agency, for example, occupies a topflight executive position directing many middle-management and direct-care personnel. In schools of nursing, levels of position range from assistant instructor to professors and deans in bachelor's degree and graduate programs.

Specialists are needed in increasing numbers in various fields of nursing, and many of them need graduate training. A master's degree or post-master's training is required to train clinical specialists (in surgical or psychiatric nursing, for example), or functional specialists (in teaching or administration).

Whatever their level of responsibility, nurses must be prepared to carry out their functions effectively on behalf of millions of patients in hospitals, over a hundred million out-patients, and the many millions more nurse-patient contacts found in all the fields of employment annually.

The Present System of Nursing Education

The present system of nursing education in the United States is composed of five major types of programs. The first prepares practical nurses. The next three programs prepare nurses who, upon state licensure, may practice as registered nurses. And the fifth type of program prepares nurses for advanced positions.

Nursing education is offered by universities, colleges, junior colleges, vocational schools and hospitals. Some institutions are private, some public. Some emphasize applied learning, while others stress basic sciences and humanities.

A clear understanding of the requirements and potentialities of each type of program is needed in order to understand trends in nursing education, and to make decisions about which trends should be reinforced to produce the number and kinds of nurses needed in each state. Decisions about creating new programs, and modifying or closing others, also rest on a clear understanding of each type of education and institution.

PRACTICAL NURSE PROGRAMS

Most of these are offered by public vocational schools, some by hospitals, and a small but growing number of technical and junior colleges. The programs are usually one year long, but there is a discernible trend to increase their length.

Students receive three or four months of formal instruction in elementary sciences and in methods of nursing, plus eight or nine months of supervised clinical experience in surgical and medical nursing, mother and child nursing, and sometimes psychiatric nursing.

DIPLOMA PROGRAMS

Conducted by hospitals, these programs are usually three years in length, but there is a trend toward decreasing the length of the programs.

The sciences are taught as applied courses. Clinical courses include medical and surgical nursing, mother and child nursing, and psychiatric nursing.

ASSOCIATE DEGREE PROGRAMS

These are two-year programs offered in junior colleges. They provide a few courses in the humanities, sociology, psychology, biology and chemistry (sometimes presented as survey courses), with some courses taken with other students in the junior college.

The clinical courses are medical and surgical nursing, mother and child nursing, and psychiatric nursing—all taught at the lower division college level.

BACHELOR'S DEGREE PROGRAMS

Offered in colleges and universities, these four-year programs are the only ones which produce

registered nurses who are eligible for beginning practice in all employment fields including public health nursing, and are also eligible for graduate study.

Students take biological, physical, social and behavorial sciences, and humanities. Some subjects are studied at two or more levels, and most are taken with students in other programs of the college.

Professional courses in clinical fields include clinical experiences in hospitals and other community agencies and are taught at the upper division college level. Many of the programs are arranged so that lower division courses can be completed in another college or junior college.

GRADUATE PROGRAMS

Universities offer one- to two-year programs for the master's degree, while doctoral degrees require longer study. Only graduates of bachelor's degree programs in nursing are eligible.

Graduates of associate degree and diploma programs must acquire a bachelor's degree to be admitted. This means taking additional courses in the humanities and sciences as well as professional courses at the upper division college level.

The total amount of time required to get a bachelor's degree in this fashion is considerably longer than the time spent by students who enter a bachelor's degree program right from high school—an important point for those who plan to go on to graduate study.

Master's programs concentrate on one clinical field, and may also prepare nurses for teaching or administration. Until recently, nurses achieved doctoral degrees only in such fields as physiology, sociology, psychology, or education. Now a few universities are offering the degree of Doctor of Science in Nursing. Both kinds of doctoral training are needed for leadership positions.

Trends in Nursing Education

In a time of rapid expansion and change in science and in social and educational concepts, nursing like other human endeavors moves ahead unevenly. Confusion about which of the foregoing methods of education is most promising has arisen for a number of reasons.

First, philosophies of education differ. Some believe that schooling is only the beginning of a lifetime of learning, while others expect that it will produce a "finished" person able to assume full responsibility immediately after graduation.

Secondly, philosophies of employment differ. Employers often comment that some graduates of the bachelor's and associate degree programs, having had less clinical experience as students than graduates of diploma programs, seem less competent at first in carrying out routine tasks.

These employers fail to see that these students soon catch up, and in the meantime show other —and in the long run more valuable—competencies.

Also, expectations of physicians and employers vary. Some emphasize technical competence only, while others place value on deeper personal and community understandings developed in the bachelor's degree programs. For this reason a movement is progressing (though it is far from general) to differentiate between nurses with different educational backgrounds in respect to job descriptions and salaries.

The expectations of nurses are not always met either. Some nurses with new kinds of expertness which are in line with the new concepts of nursing care find themselves in stultifying situations in which their expertise cannot be used.

In order to resolve some of these misunderstandings, new trends in nursing education are being put forward. Their aim is to train students more adequately for the types of jobs and responsibilities which they will be facing.

UNDERGRADUATE AND GRADUATE EDUCATION

Undergraduate education is increasingly geared to learning in order to continue to learn. There is more emphasis on problem solving than on mastery of routines; more organization of learning into nursing problems rather than into disease entities; and an increased emphasis on synthesizing scientific principles in the process of planning and giving care to a patient.

Clinical experiences are extending beyond hospitals and into other community health services. And a greater effort is being made to stimulate inquiring minds and foster scientific attitudes, using independent study, programmed instruction, honors programs, television, and other audio-visual methods.

Graduate education is making strong progress with increasing emphasis on graduate study of sciences, and more penetrating analyses of patient care as well as community and educational problems. In some instances, students are being prepared for research in nursing.

PROFESSIONAL, TECHNICAL, AND VOCATIONAL EDUCATION

Increasingly, the term "professional education" is being used only to denote education provided in bachelor's degree programs for nurses. Education in associate degree and diploma programs is being referred to as technical education. [2]

Technical education consists of occupation-oriented sciences and fewer humanities courses than does professional education. It has great significance in the total spectrum of nursing education because a large part of direct nursing care will involve mastery of old and new tech-

nology and will be provided by persons with technical training.

A trend is beginning to raise the education of practical nurses to the technical level. Already more and more practical nurses are being trained in junior colleges, and their courses of study are being lengthened. The customary one-year program is growing, in many cases, closer in length (though not in content) to the two-year course of study required for an associate degree program.

For nursing aides, who were formerly trained on the job, the trend is toward vocational education in vocational schools in order to raise their level of pre-employment competency.

PREPARATION IN EDUCATIONAL INSTITUTIONS

The trend toward placing responsibility for all nursing education in educational institutions, rather than in service institutions such as hospitals, is based in part on the educational advantages of such an arrangement.[2]

Contact with many other kinds of faculties and students is valuable to nursing students. They can also benefit from the more general education found in colleges. On the other hand, the nursing curriculum, with its strong emphasis on human values, can be a valuable addition to the college's offerings.

In addition, it seems logical to finance nursing education in the same way that other kinds of higher education are financed, rather than to draw support for it from the payments of patients as is done by schools of nursing located in hospitals.

HIGHER EDUCATION

Statewide planning for nursing education must be responsive to developments and state plans for higher education. In most states, nursing educators can benefit from the surging concern for higher education in general and the decrease of anti-intellectualism. Nursing can ride this wave of high regard for education, because in such an atmosphere education for professional nursing in colleges and universities is easily accepted.

But the youth with intelligence who go to college will not study nursing if no nursing programs are available. In one five-year period recently ended, for example, the number of women entering college increased by 50%, while the number entering all the schools of nursing which prepare registered nurses increased by only 6%.

An even higher percentage of college graduates is also entering graduate school, but again this does not mean they will enter graduate nursing programs unless planners can take advantage of this development in higher education.

The remarkable growth of junior colleges—and the state's plans for creating still more—is of vital concern to planners of nursing education,

since junior colleges may be the major source of technical nurses in the future.

Planners of nursing programs should also be aware of state and national policies regarding prerequisites, major fields of concentration, graduation requirements, faculty qualifications, faculty development, and the like—policies which are important in higher education.

Educational policies are an important ingredient of new associate degree, bachelor's degree, or graduate programs in nursing, too. In general, policies of the nursing program will, of course, be the same as those of the sponsoring institution. However, in some specific instances, special policies may have to be adopted. For example, whatever the general admission policies of an institution, nursing programs within institutions should establish appropriate admission requirements.

OTHER HEALTH SERVICES AND PROFESSIONS

The State's Goals for Health Services

As one indication of the number of nurses of all kinds which should be trained in the state each year, planners should combine the estimates of nursing personnel needed by each of the various health services in the state.

Estimates by experts in each of the state's health fields should be based on projections of health services which will be provided in the future. They should take into account population growth, scientific advances, health program development, proposed construction and expansion of health facilities, and economic factors governing health service development.

Education for Other Health Professions

Planning for nursing education should also be coordinated with plans for educating members of other health professions and related occupations.

Since common factors govern the needs for personnel in each of these fields, sometimes common solutions will be found to ease the shortages.

Educational programs for all the fields of health work have much in common, too, including courses in the health sciences, expensive laboratories, and the need for clinical practice. Coordinated planning may result in proposals for sharing scarce teaching personnel, equipment, or clinical facilities.

The potential benefits of permitting members of future health teams to study together as students should also not be overlooked. Since nurses are expected to work together productively and harmoniously with physicians and other therapists after graduation, they will be much better prepared to do so if they have exchanged ideas and experiences with their fellow team members in classrooms and laboratories.

IMPERATIVE FIVE

The planning body's efforts must be geared to producing prompt action and meaningful changes in nursing education.

COMPREHENSIVE, BALANCED PLANNING

Statewide planning must deal comprehensively with all types of nursing education, and must aim at the preparation of the various kinds and levels of personnel needed, each in proper balance with the others.

Development of each kind of nursing education depends on and affects the others. A state, for example, whose bachelor's degree programs are growing too slowly will find it has too few candidates for graduate education, and that therefore all nursing education programs will suffer for want of teachers. Giving additional education to graduates of diploma and associate degree programs to bring them to the bachelor's degree level is a slow and costly process.

On the other hand, a state whose associate degree programs in nursing are developing too quickly in junior colleges will find a similar imbalance of nursing personnel before long. For balance, it should also plan to establish a number of pre-nursing transfer programs in the junior colleges. These will permit their graduates to go on to bachelor's degree programs in four-year colleges and universities.

Balance among the kinds of nursing personnel available has a great influence on the quality of nursing care. When the number of aides and practical nurses is out of proportion to the number of registered nurses, the quality of care is diluted and supervision is skimpy. In addition, when the number of registered nurses and nurses with advanced training is proportionately few, there is a shortage of leadership for improvement.

Drastic action will be needed if unbalanced production of nursing personnel has persisted in a state for many years. For example, producing nurses in proper proportions for the next ten years would only slightly improve the imbalance created over the last 40 years.

CONTINUOUS PLANNING

Not only should the planning body be a continuing one, but the plans it makes should never be finished. Facts used in the first version of a plan will be a little out of date as soon as they are set down on paper. They will need to be supplemented and superseded by other facts continually to keep pace with new situations and revised goals. New studies will be needed to evaluate past progress and cope with new challenges.

ESTABLISHING PRIORITIES

The effectiveness of planning will depend greatly on the ability of planners to select priorities for planning and action.

Effective planning will always be a judicious combination of long-term and short-term study and action. While planners must study the nursing situation in their state as well as related trends, they must also be able to pin-point the most strategic problems immediately and go to work on these at once.

In most states, some of the most strategic problems will be one or more of the following:

- shortages of qualified teachers for every kind of nursing education program
- decisions about which of the growing number of junior colleges should establish nursing programs
- decisions about best use of scarce clinical facilities in certain locations
- shortages of nurses with bachelor's degrees
- decisions about whether to expand or initiate certain graduate programs, or to cooperate with other states in providing graduate education
- meeting immediate needs for specialists in rapidly developing health programs.

Some problems will require short-term action while long-term solutions are being set in motion. While long-term action to acquire more nurses with advanced training is being planned, for example, planners can launch continuing education programs to up-grade teachers, or start short programs to prepare needed specialists.

While many problems will require special studies, these are time-consuming and only a few can be done at once. Judgment will be required to decide which studies are needed most by a state.

Many states, for example, will want to know first the answers to questions like these:

- How many young people leave the state to study nursing?
- Do salary scales for nurses deter recruitment and employment?
- How can more men be attracted to nursing?
- Should one or more programs emphasize the recruitment of older women as students?

FLEXIBLE PLANNING WITHIN A STABLE FRAMEWORK

Planning for nursing education should be flexible enough to allow experimentation and justified changes, yet stable enough to resist capricious action to meet very temporary or local needs.

The following are the kinds of situations to which planners must remain alert, and must be ready to modify their plans accordingly. Changes in health program development may call for shifts in emphasis in nursing education plans. Scientific advances may introduce needs for new kinds of nursing personnel. Experimentation may reveal ways to alter the teacher-

student ratios in schools. Or a new institution may grow more rapidly than expected and decrease the need for some other expansion.

On the other hand, some proposals will not justify changes in planning. Planners should discourage the establishment of an educational program in an institution which will train special personnel for a purely local need, when adherence to the master plan would produce the same result in a more stable way.

Planners must also discourage proposals to locate new programs where faculty and clinical facilities will remain inadequate, even if these proposals are backed by political pressures.

SETTING AND PROMOTING STANDARDS OF EXCELLENCE

In striving for high quality in nursing education, planners should make explicit the standards of excellence for each kind of program, and encourage institutions to reach them.

It is unlikely that planning bodies will be able to define for themselves criteria of excellence more forward-looking or better contrived to induce improvement in nursing than those criteria which have been set by national accrediting bodies.

Criteria for accreditation in nursing education are formulated by associations or councils composed of representatives of the nursing schools. Organized within the National League for Nursing are councils for each kind of educational program.* (In 1966, 75% of the students graduating from all programs preparing registered nurses came from programs accredited by the National League for Nursing.)

High standards are also set by the various accrediting bodies for higher education institutions. Planners should see to it that programs for nursing education are located in colleges which have institutional accreditation, and that the nursing programs meet or strive to meet national criteria for accreditation in nursing.

Information about minimum standards of quality, present and projected, is available from state boards of nursing. Every nursing education program must meet the state board's minimum standards if its graduates are to be eligible to take state examinations and practice nursing.

State boards give examinations to graduates of diploma, associate degree, and bachelor's degree programs. Those who pass it are entitled to practice as registered nurses. Another examination is given to qualify for the title Licensed Practical Nurse (L.P.N.).

Differentiation among candidates for examination according to their educational qualification

*Practical nurse programs are also accredited by the National Association for Practical Nurse Education and Service, Inc.

is under consideration. But in a growing number of states, it is illegal to practice without passing the examinations.

In addition, there are other sources of information and advice about standards of excellence. For example, the National League for Nursing, through its various councils, prepares guidelines for sound development of each kind of nursing education program.

OBTAINING PUBLIC SUPPORT THROUGH COMMUNICATION

The very process of planning, with its comprehensive participation by all major interests in health and related matters, will inform many who need to know about the state's needs and plans for nursing education. Communication should be deliberately planned, however, particularly with state associations and with institutions.

Well-planned use of mass media keeps people informed and elicits the responses and support necessary to a successful planning program. This kind of publicity also provides information helpful in recruiting students by informing them of the varieties of education and careers available.

Communication about plans aimed at those who will act upon various segments of the plans should be expertly handled, and should start at the beginning of the planning process. The state legislature, governor, state executive departments, boards of various kinds, as well as institutions will be among those to whom this kind of communication should be addressed.

THE ROLE OF THE PLANNER

The setting of goals and designing of action to achieve them requires a great deal of hard work by men and women who are skilled in their fields. But the ideal planner must be more than a hard-working expert. Above all, he must have the judgment needed to assess the feasibility of plans, and the talent for translating them into action.

The planner will have to cope with the pressures of politics, traditions, and vested interests. He must assess and, if necessary, change public attitudes toward health and nursing. And he may be called upon to mediate between planners and activators when their philosophies are incompatible. He must know when risks should be taken, and when compromises should be made. When the ideal planner presents the ideal plan to the real world, he will encounter less than ideal circumstances. Stereotyped antagonisms and prejudices persist:

- nursing leaders who are possessive about decisions affecting their fields
- hospital administrators—harried daily by rising costs, shortages of nurses, and increasing numbers of patients—who may not favor the changes in nursing practice and education

- physicians who adhere to sweeping generalizations regarding the solution of the nursing shortage
- educators who have little regard for nursing education
- legislators committed to special interest groups
- and a large assortment of other people who have pat, contradictory, sweeping or bizarre solutions to all nursing problems.

The planners must therefore arm themselves with a sound planning organization; a thorough grounding in nursing and related fields; a well thought out plan; and strong support. In addition, planners must have the personal commitment and wisdom needed to combine these factors into a workable program.

Chapter II

The Processes of Planning and Action

Planning implies the pooling of intelligence, information, dreams, and wisdom. It may be defined as advance thinking as a basis for doing. In practice, planning involves three basic processes:

1) Goal setting—planning what to do
2) Designing action—planning how to get it done
3) Evaluation—continuous appraisal of goals and of progress toward goals.

SETTING GOALS

Goals for nursing education are set in terms of the number, the kind, and the quality of nursing personnel which will be needed in all fields of nursing employment in the state—present and projected—on a series of target dates.

National Goals

In 1963, the Surgeon General's Consultant Group on Nursing set a goal of 850,000 registered nurses and 350,000 practical nurses to be in active practice by 1970.[1] Having scrutinized the kinds of positions the registered nurses would fill, the group stated that 100,000 of the 850,000 registered nurses should have advanced and special education (the master's degree or higher), and that 200,000 additional nurses should have acquired the bachelor's degree.

The 850,000 registered nurses would supply nurses at a ratio of approximately 400 nurses per 100,000 people in the U. S. population of 1970 (compared to 297 per 100,000 in 1962).[2]

For 1975, a national goal of one million registered nurses and one-half million practical nurses was set by the Division of Nursing of the U. S. Public Health Service in 1966. This would represent approximately 450 registered nurses per 100,000 people in the population—50 more registered nurses per 100,000 people than the ratio suggested by the Surgeon General's Consultant Group for 1970.

State Goals

States differ widely in their ratios of employed nurses to population. In 1960, this ratio ranged from 184 registered nurses per 100,000 people in Arkansas, to 443 nurses per 100,000 people in New Hampshire. Some states have high ratios for registered nurses and low ratios for practical nurses. In some states the situation is reversed, while in others the ratios are high or low for both categories of nurses.

The primary questions to be answered in setting state goals for nursing personnel are:

1) How many nurses of each kind will be needed in each field of employment and at each level of responsibility on a succession of target dates?

2) What educational preparation should each of these groups of nurses have?

Goal setting should not be hampered by fears that goals cannot be reached. A planning body must know how many nurses are needed in order to achieve the full benefits of nursing services for the people of the state. Goals must reflect this actual need, and should not take into account a state's ability to produce the nurses needed. Compromises with reality should be made in the second stage of planning when action to meet stated goals is designed.

Goal setting should be a comprehensive process, even in those cases where the planning body is charged with planning only for the education of a special group of nurses. Some planners, for example, may be charged with planning only for the education of registered nurses, or may be limited to planning only for education in associate degree, bachelor's degree and graduate degree programs.

These planners must, however, set goals for the total supply of nursing personnel in the state in order to arrive at goals and design action for their particular group. Planners limited to planning for only one group of nurses should also endeavor to get their charge expanded to encompass all types of nursing personnel and education programs.

DETERMINING THE NUMBER OF NURSES NEEDED

The planning body should begin by requesting from all employers of nurses in the state an estimate of 1) how many registered nurses will be needed on at least two target dates, and 2) how many practical nurses will be needed on these target dates. Estimates should mention specifically the number of nurses in each category needed at different levels of responsibility, and the educational qualifications which each group of nurses at each level should possess. (Information needed from employers for other steps in planning should also be obtained at this time.)

Respondents in each field of employment should be asked to take into account their plans for expansion, contemplated changes in the nature of their operations, and the evolution of their concepts of nursing services.

In making this kind of a survey of needs, planners should include all the major fields of nursing employment. These include:

- Hospitals—all general and special hospitals, including mental hospitals and outpatient departments
- Nursing homes
- Community health agencies—official and voluntary, including community mental health agencies

- Nursing education institutions
- School health programs—in public and private schools and colleges, including special schools
- Occupational health programs—including industrial programs
- Physicians' and dentists' offices
- Private practice—all private duty nurses

A summary of responses from nursing employers becomes a basic document in planning. However, it will require additions and modifications by the planning body in light of other information which it must secure.

For example, planning bodies will have to search imaginatively for information on the number of nurses needed for forefront activities. While their number may be small, these nurses are strategic to health development in the state, and their presence will have to be specifically provided for. They are likely to come from the small and equally strategic group of nurses that are planned for administration of schools and nursing services, as well as teaching in graduate programs.

Some of the nurses needed for leadership will be engaged in one-of-a-kind jobs, and some may not be mentioned in a state survey of nursing employers. Examples are:

- Nurses who plan and direct continuing education programs for nurses and others who are employed in regional centers for patients with heart diseases, cancer, or stroke
- Clinical specialists for improving patient care in different settings
- Experts in establishing programs for nursing care of the sick at home
- Nurses who participate in programming automated and computerized processes
- Nurses who conduct studies of the reduction of absenteeism in industry when health programs are initiated
- Nurses who devise ways to bring health services to hard-to-reach patients and families
- Consultant nurses for nursing homes
- Nurses who assist in research in clinical medicine, and conduct research in nursing
- Directors of in-service education programs in service institutions, and of continuing education in educational institutions
- Nurses who establish vocational education programs for nursing aides, including those for disadvantaged persons

REASSESSING NEEDS AND GOALS

The expressed need for nursing personnel by employers must be evaluated in terms of other developments in health and education and in terms of the expected population and economic

growth of the state and the nation. Among the sources of such information are:

- Departments and offices of state government, such as the departments of health, mental health, education, welfare, and boards of nursing
- State associations, such as nursing organizations, the hospital association, medical association, public health association, nursing home association, and such organizations as the Cancer Society, Heart Association, and Tuberculosis Association
- Hospital councils in metropolitan and other areas of the state
- Other planning bodies in the state, including those for health, education, urban renewal, housing, industrial development
- Reports of state legislative committees
- Medical centers and universities
- Voluntary planning organizations for health professions
- National nursing organizations
- Offices of the federal government, such as the Public Health Service and the Office of Education
- Plans of other states for nursing and/or higher education
- Regional education boards

Planners will have to distinguish between demands for nursing personnel and real needs. For example, every school actually needs school nursing personnel, but this personnel may not be demanded by every school board for the first target date in the plan. In addition, some demands for personnel will come from persons unaware of developments in health and will be too conservative. Others will come from unrealistic dreamers and will be exorbitant.

Staffing guides are a useful tool for testing the estimates of personnel needed which are made by nursing employers. Staffing guides are also useful in translating needs expressed in terms of beds or services into needs for nursing personnel.

Once the needs for personnel have been compiled and evaluated, they are then expressed in terms of goals for the state. Goals, too, can be tested by computing the ratio of the desired number of registered nurses to the estimated state population on each target date. This ratio should then be compared with previous ratios in the state, with ratios in other states, and with the desired national ratio.

Some states must exceed the desired national ratio because of larger concentrations of medical facilities, unusual age distribution of their population, or other indications of greater need than the national average.

While some states have greater capability of meeting their needs than others, all states should aim at reaching the ratio desired for the nation at the earliest possible date. It should be noted that this desired national ratio is likely to continue to rise over the next decades along with scientific advances and a rising standard of living.

DETERMINING THE QUALITY OF NURSING PERSONNEL

One essential way, though not the only way, of designating the quality of service expected of nurses at each level of responsibility is to state the educational qualifications they should possess. These qualifications should be stated by employers in their estimates of need, and should be evaluated by the planning body in terms of its own thinking about the quality of personnel which the state should have.

However, because the capacity of the education system is assessed in the next stage of planning—that of designing a program of action—it will be somewhat difficult to arrive at an exact estimate of the number of teachers and educational administrators needed to staff the education programs. It is suggested that the best estimate be made while setting goals, and that planners review and modify this estimate when action is being programmed.

SETTING TARGET DATES

Goals stated in terms of numbers of nurses needed in the state should be set for successive target dates. The choice of these dates is a significant step in planning.

Long-range planning is desirable, but should proceed concurrently with short-term planning. Because of the urgency of the need for nursing personnel and the dangers of haphazard development, the first target date should be not more than three years in the future. Long-range goals might be set for target dates five, 10 and possibly 20 years in the future.

Planning bodies will certainly be confronted with decisions to be made during their first months of appointment, and before their first goal figures are even determined. Such decisions (as to which junior colleges should establish associate degree programs, for example) will have to be made on the basis of knowledge and judgments then available.

DESIGNING A PROGRAM OF ACTION

Having set goals for nursing education in terms of the number and kind of nursing personnel needed in the state on specific target dates, the planning body must next design a program of action to meet these goals.

Here also, the planning body must be mindful that implementation of its plan will depend

upon many institutions over which the state has no administrative control. Effective action will require cooperation among public and private educational resources of the state, and it is in this area that the effectiveness of the plans is likely to be most severely tested.

If representatives from various public and private institutions and professional associations have been kept informed as plans developed; if they have participated appropriately in the formulation of plans; and if the plans themselves give evidence that the nursing needs of the state will be served—then it can be expected that most private as well as public institutions will heed the recommendations of the committee for action.

Five major questions must be answered in designing an action program for the state:

- How many students must be admitted annually to each kind of education program in order to reach the goals set for each target date?
- How many of these students can be accommodated in each existing educational program if the programs are expanded and modified?
- How many new programs are needed? What kind? In what location? Under what auspices? With what capacity?
- How can the additional students needed be attracted to the appropriate programs?
- How can new programs and changes in existing ones be financed?

Determining Annual Admissions

Goals for the numbers and kinds of nurses needed must first be translated into the number of students who must be admitted annually to each type of education program. For this determination, the first target date—three years in the future—should not be used, but computations should be geared to meeting the demands set for the second target date and succeeding ones.

Statisticians can compute the number of students who should be admitted to each kind of undergraduate program annually, beginning at the current number of admissions and increasing the admissions schedule each year until the required level is reached.[3] It is likely that this schedule will show a change in proportion of admissions to the different programs.

Two factors enter into the computation. First, the annual attrition from the state's nursing manpower because of death, retirement, marriage, or change of occupation. And secondly, the computations should take into account the drop-out rate among students in schools of nursing.

Drop-outs from both nursing schools and nursing employment represent a serious waste of nursing personnel. The causes, therefore, deserve further

study. Are salary scales too low to attract nurses back to nursing after marriage? Should employment policies be more flexible to permit part-time and irregular schedules for nurses with home responsibilities? Is the drop-out rate for students unduly high because students have not been selected wisely for individual nursing programs? Or are the programs not sufficiently challenging? What are other causes for educational drop-outs?

Planning New Programs

BACHELOR'S DEGREE PROGRAMS

Planners should study professional education leading to the bachelor's degree first. Having determined the annual increase in admissions needed over a period of years, the planning body should attempt to find out what the obstacles are to increasing admissions in nationally accredited programs in the state, and plan actions to remove these obstacles.

Examples of such actions might be:

- Making arrangements with additional hospitals and community health agencies for more clinical experience
- Increasing the number of faculty members, while reducing their non-teaching functions
- Providing more scholarships to attract and hold students
- Making an effort to attract men students
- Expanding instructional and office space in schools

Some of these actions can be undertaken by institutions, but others will require action by the planning body. For example, if a fast-growing program in a state college or university needs three times its present amount of instructional and office space, the Coordinating Board would be urged by the planning body to give high priority to this construction in its next report to those responsible for appropriating or allocating funds. Or, if the scarcity of teachers is a bottleneck, the planning body can intensify its efforts in stepping up graduate education.

The second step toward increasing admissions to bachelor's degree programs is to find ways of improving those programs in the state which are not yet nationally accredited. The planning body should identify those programs which show promise of meeting the criteria for accreditation, and determine how these programs can be helped to meet them.

It is possible that some of these unaccredited programs are not properly located in a supportive college, or in a community with adequate clinical facilities. They might not have sufficient attraction for students and faculty for other reasons. Programs which are not properly located should not be encouraged. Their clinical facilities and faculty can be used to better advantage in another school or for a different kind of program.

The third step will be to decide how many new bachelor's degree programs will be needed in the state and where these should be located. The planning body should look first for a site in a university with or near a large medical center. Medical centers are likely to be located where rich community facilities of other kinds, including schools for other health workers, are also available.

Another good choice for a new program is a college in a city with one or more fine community hospitals and rich community facilities. Close proximity of academic and clinical facilities is desirable. The clinical facilities of most medical centers are rich enough to serve more than one kind of nursing education program from more than one school.

A new nursing program in a university or college must be fully accepted, respected, and treated on a par with other education programs in the institution. It should be held to policies established for faculty appointments, student admissions, graduation, and other educational standards. It must also be assured of financial support.

In some instances, a bachelor's degree program will be started when a diploma (hospital) program is closed. In these cases, the college or university must recognize its obligation to be responsible for the organization, administration, curriculum, and instruction in the new program. It must not merely take on, without change, a program which has operated for a different purpose under other auspices.

Planning bodies should avoid placing small bachelor's degree programs in locations where they would merely serve a series of small populations. Generally speaking, students can be expected to leave home to study in any professional bachelor's degree program. Housing should be available for nursing students in dormitories of the college or in community housing for students, so that separate dormitories for nursing students need not be planned. (In large cities, large numbers of day students who live at home can be expected to enroll in nursing programs.)

When new programs are planned for state institutions, the planning body will recommend this action to the coordinating board of higher education, which should include them in the state's master plan for education and initiate action accordingly. When new programs are planned for private institutions, however, the planning body must depend on its own powers of persuasion to get them established.

ASSOCIATE DEGREE PROGRAMS

Associate degree programs in nursing, usually located in junior or community colleges, are expected to provide the predominant portion of the nation's technical nurses in the future. While diploma programs also produce technical nurses, and planners will have to make recommendations on the number of admissions to both diploma and associate degree programs,

they will probably agree that the major increase in admissions should be in the junior colleges.

With the increased need for technical nurses and the decline of diploma programs, planners will be challenged to turn the rapid growth of junior colleges to good account in nursing education. They should keep in mind that associate degree programs often attract married women to the study of nursing because of the convenience of attending school in their own communities, and because the program is only two years in length. Junior colleges also provide pre-nursing transfer programs from which students may transfer to colleges or universities and take the upper division courses required for a bachelor's degree.

Although the junior college's place in nursing education is a valuable one, and the number of junior and community colleges is increasing rapidly, planning bodies must make sure that the quality of nursing education in the junior colleges will be high. Planners should review the state's master plan for education to find out about the development of existing and new junior and community colleges, and to determine in which ones new programs in nursing should be located.

The primary characteristics to look for in choosing the site for a new associate degree program are:

- A potential supply of students in sufficient numbers to warrant a continuing program
- Clinical facilities which are in close proximity to the college and are adequate in size and variety for the nursing program
- Enough suitable instructional and administrative space
- Financial support for salaries and operating expenses, including library facilities and student aid
- Colleges offering those biological and social sciences which are appropriate for the nursing curriculum

Local enthusiasm for the establishment of an associate degree program in nursing may outrun the ability of the locality to provide all the essential conditions for a successful program. Planners should favor larger population centers over smaller ones in the same section of a state, for example. When a large junior college is on the drawing board, planners would do well to wait for its completion rather than sanction the creation of a very small program in a nearby small junior college.

But when a small junior college is the only one in a large section of a state, a nursing program may be vitally needed there. When a diploma program is converted to an associate degree program, qualified faculty members will probably be available from the diploma program, and clinical facilities are likely to be adequate.

In general, however, the nursing programs should be distributed throughout the state in a manner

which parallels the distribution of the population, keeping in mind that one large program is likely to produce better results than two small ones in the same general locale.

Once located, a new program should not be opened unless a director, preferably one qualified with at least a master's degree, can be employed at least six months in advance, and some of the faculty can be on hand to assist him or her with planning the program. All faculty members should be on the job three to six months before they will teach students.

The same criteria which are used in placing new programs should be used in evaluating existing ones. The planning body may find that a few of the existing associate degree programs are not well located, and will then have to determine whether the situation can be remedied, changed, or accepted.

DIPLOMA PROGRAMS

For almost one hundred years, since the beginnings of nursing education in this country, hospital diploma programs have prepared the predominant portion of the total number of registered nurses. Recently the proportion has been steadily decreasing, however, because of the cost of such programs to the hospitals, the sources of funds (payments of patients), the difficulties in securing teachers, and the tendency of students to prefer degree programs.

The planning body should recognize the valuable contribution these programs have made in providing nurses over the years—recently at great cost to the hospitals. However, because of the above factors, it is unlikely that new diploma programs will be recommended.

Some of the most difficult matters which will confront the planning body are decisions about whether or not diploma programs should be continued, expanded, or phased out of existence in the state and, if so, in what sequence and within what time period.

Most diploma programs will fall outside the limits of official responsibility of the state planning body, yet any comprehensive plan for nursing must take them into account. It will be important for persons from diploma programs to have an opportunity to help shape the state plan, and to make known to the planning body the long-range plans of the hospitals for their programs. The state plan should help hospitals assess their long-range potential for continuation and to plan accordingly.

Until recently, many diploma programs provided nurses for sectors of the state for which there were no alternative nursing education programs. But as more junior and senior colleges are established throughout the state, and as the number of college-bound students increases, other possibilities will arise, such as the establishment of new associate degree or bache-

lor's degree programs in junior and senior colleges with nearby clinical facilities.

In such instances, the clinical facilities now used by a diploma program may be needed by a new college-sponsored program, and the hospital may decide to phase its program out of existence in favor of the emerging college program. The state plan may propose that the strongest and largest diploma programs in the state be continued, at least until such time as alternative sources of nurses are developed.

However, the state's educational capacity to prepare nurses must not be decreased by the sudden closing of large numbers of diploma programs. The planning body will need to exercise its best judgment to insure a steady flow of nurses into the state during a period of transition in the system of nursing education. The state plan should encourage and hasten this evolution when it will improve the quality of nursing education, move financial responsibility for nursing education to the proper sources, increase potential enrollment, and improve the balance of educational opportunities for nursing students.

PRACTICAL NURSE PROGRAMS

As practical nurse education is strengthened and lengthened, special consideration may be given to upgrading these programs to technical programs in junior and community colleges.

The rapid expansion and accessibility of associate degree programs may eventually drain off students from practical nursing programs and constitute a natural transition to junior college programs. States cannot afford, however, to lose the services of potential graduates of practical nursing programs unless they have suitable substitute programs in operation.

It is likely that in setting goals the great need for practical (also called vocational) nurses in nursing homes and other institutions for aging patients with long-term illnesses will be apparent. If so, education for practical nurses must meet this increased demand and prepare practical nurses for this kind of nursing, as well as nursing care for the sick at home.

Planners should study the state's educational master plan for development of vocational and technical schools around the state, and plan the use of the most promising facilities for preparing practical or vocational nurses. These schools should, of course, be near the appropriate clinical facilities needed for training.

Vocational education programs, which are shorter than practical nursing programs, will increasingly train nurses' aides of various kinds. Planners are not likely to be charged with planning for the training of nurses' aides. But they are likely to agree with the Surgeon General's Consultant Group on Nursing [1] that the high proportion of nursing care given by aides with skimpy training is deplorable, and that the

preparation of more professional, technical, and vocational nursing personnel is one means of combating this dilution of quality nursing care.

GRADUATE PROGRAMS

Because leaders, particularly teachers, are so strategic to other developments in nursing, planners should give early attention to graduate education, and assign high priority to actions in this field.

Every state will find that it needs far more nurses with graduate preparation than it has. In setting the goals, planners will have specified the number of nurses needed with additional or graduate education for advanced or special positions in the upper levels of responsibility in all fields of employment. Information compiled at the same time will have indicated how many nurses there already are in the state with master's or doctoral degrees.

At this stage of planning, planners should be able to refine their estimates of the number of teachers needed for all fields of instruction in all undergraduate programs. They will probably find that for an interim period they must settle for some teachers who have only a bachelor's degree.

But by one of the more distant target dates, planners should aim at full qualification for the teaching force in nursing. Nurses with doctoral degrees should be available for deanships in bachelor's degree programs, for professorships in graduate education programs, for research positions, and for some consultant and administrative positions. The planning body should also aim at producing nurses with master's degrees for other teaching positions, most middle-management positions, and for clinical nursing specialities.

Planners should first consider ways of helping registered nurses without bachelor's degrees to obtain them. This preparation not only increases the number of nurses who can provide more complete and better care to patients, but it also increases the pool of nurses eligible to go on to study toward a master's degree.

New graduate programs in nursing are best placed in universities with:

- graduate programs in many related fields, with opportunities for collaborative teaching and research
- medical center connections for a wide variety of clinical and research experiences for students and faculty
- community health facilities which are rich and varied
- an undergraduate program in nursing
- facilities for students, teachers, and researchers, such as computer services, various laboratories, and a library

The number of nurses with special graduate education needed in some categories may be too small in some states to warrant the establishment of a program of graduate education in that field. Two or more states could combine forces in such cases, one offering one set of programs and the others offering other sets of specialized programs.

While regional planning is highly desirable for many types of graduate education, national planning may be needed to achieve the even more widespread participation by states required to train students for the doctoral degree.

In large states, two or more large universities may offer master's degree programs in nursing. In these cases, planners should help the institutions work together to avoid costly and unnecessary duplication of programs. Together the universities should provide the number and kinds of graduate offerings required by nurses from their own state and other states.

Graduate programs should be directed, as soon as possible, by nurses with doctoral degrees. Faculty members of these graduate programs should carry on active programs of research in their own fields, and teaching loads should be light enough to permit research activities. Research grants are available in nursing for both graduate faculty members and students.

CONTINUING EDUCATION

Continuing education prevents obsolescence and raises the competence of nurses at all levels of responsibility. It is short-term education addressed to selected strategic needs for improvement or for learning about pertinent advances.

Care of patients changes with each new therapy, philosophy of treatment, or understanding of new scientific rationale. Continuing education is the best way for groups of nurses to keep up with new techniques, and to learn ways of caring for special kinds of patients. It serves well, for example, in teaching staff nurses the most recent developments in caring for patients with coronary disease.

Continuing education is also sometimes stopgap education. While it would be more desirable to give every unqualified teacher an opportunity to acquire a master's degree, it is not always immediately possible. Short-term education may be used in the meantime to fill in some serious gaps in preparation and raise the quality of teaching.

But although continuing education occupies an important place in nursing, it is not a substitute for graduate education, nor can graduate courses be offered piecemeal through continuing education programs. It is also no substitute for in-service education, for which nursing employers must continue to be responsible.

A planning body will not find it appropriate to design a comprehensive program of continuing education for all nurses in the state. From in-

formation it has collected, however, it will identify strategic fronts where continuing education would be useful. For example, it might recommend the establishment of organized programs for unqualified teachers. It might recommend the establishment of one or more continuing education centers to offer a wide variety of programs throughout the year.

The planning body might recommend the assumption of responsibility for certain kinds of continuing education by institutions particularly well suited to offer it. Planners should urge junior colleges, colleges and universities with nursing programs to offer continuing education programs for various levels and kinds of nursing personnel throughout the state. For instance, junior colleges with associate degree programs might offer short-term courses for staff and head nurses in nearby community hospitals and health agencies.

Colleges with bachelor's programs in nursing could offer continuing education in clinical and certain special fields. And graduate programs might offer continuing education programs for teachers, as well as advanced workshops and seminars in clinical fields.

Attracting Students to Nursing Programs

The very fact that nursing education is significant enough to warrant statewide planning by a prestigious body calls positive attention to nursing as a career. And the trend to elevate salaries in nursing, which is certain to continue, should alleviate one deterrent to attracting students.

But the needs for financial aid to students are not fully met, even though the availability of loans and scholarships for students in all kinds of nursing education is increasing. Scholarships seem to be a greater inducement for women to enter nursing education than are loans, because many young women are unwilling to incur debts which might persist after marriage.

But effective publicity is as important a factor in attracting young people to nursing careers as financial aid and financial reward. The full story of the attractions and satisfactions of nursing has never been told.

Planning should stimulate discussion and publication of the attractions of a nursing career. The increasing depth of the scientific and academic content of nursing should be emphasized to attract young intelligent people who are looking for a challenging career. A clear explanation of the varieties of educational programs and their appeal to different temperaments and intellectual abilities should be made to foster public understanding and attract students to programs for which they are best suited.

Planning bodies, particularly those connected with coordinating boards, are in a good position to publicize nursing as a career to academic and

scientific communities, and specifically to high school and college counselors. It is unlikely that goals for the admission of students to the various educational programs can be met without the full support of well-informed counselors. If they are to guide the right student to the right program, they must understand the varying intellectual demands of the gamut of nursing education programs, and the wide variety of careers available on all levels.

A strong effort should also be made to attract more men to nursing. Men often rise to executive positions in nursing—positions which are badly in need of more qualified people. Since men are usually the family breadwinners, they are more stable employees than are women. However, they must also be able to earn enough to support their families. Salaries are rising and should continue to rise if men are to be attracted to nursing careers.

One way in which the planning body can get the story of nursing told to counselors and prospective students is to recommend the establishment of an active recruiting center from which an effective, statewide information program could emanate. This center, or the planning body itself, could study a state's high schools to see which schools or areas of the state consistently do not yield students for nursing. A special effort could then be made to find out why this is so, and recruiting activities could be concentrated in these schools.

Financing Nursing Education

Planners should study all sources of funds within and outside their states when they are considering financial implementation of their plans. Sources of funds for nursing education are identical with those for other educational programs in public and private universities, colleges, and junior colleges. Federal funds are available for construction, some instructional expenditures, student aid, and research. Graduate programs in nursing are beginning to attract research grants and fellowships from federal and other sources.

Universities, colleges, and junior colleges have the same responsibility for financing education for nursing as for other types of educational programs, in spite of the relatively high cost of such education.

Planners will find that the cost of education for nursing *is* relatively high. Bachelor's degree programs in nursing cost universities and colleges more than most other bachelor's degree programs that are offered. Both nursing and medical education require patient care facilities in hospitals and other community health agencies. Close contact with teachers of nursing and medicine is essential for the sake of both the students and the patients. This means that the ratio of teachers to students in most clinical courses will be higher than in most other college courses.

New methods of instruction—such as television monitoring of students by teachers, and systems of two-way electronic communications between teachers and students—may decrease the required teacher-student ratio in nursing, but even so this ratio is likely to remain comparatively high. Learning individualized nursing takes individualized teaching and large amounts of small group instruction.

Costs of liberal arts courses in the nursing program may be estimated on the same basis as in other programs. However, the number of laboratory science courses in nursing programs may be higher than in some other programs, and therefore costs increase accordingly.

The same similarities and differences in costs are found when comparing associate degree programs in nursing with other programs in junior colleges. Costs of pre-nursing transfer programs in junior colleges resemble those of other programs with high science content.

Graduate programs in nursing are more costly than many other graduate programs, since high level clinical laboratory learning and graduate science courses predominate. Graduate student participation in nursing research may be costly, too.

Costs of education in hospital schools of nursing have risen markedly with improvements in education and the decreased amount of nursing services students provide to hospitals. Education costs are paid from hospital funds derived in most instances from payments for patient care. When hospitals discontinue educational programs for nurses and the hospital is used for clinical experiences for students in bachelor's and associate degree programs, financing is shifted to those who are utilizing the clinical facilities.

Costs of buildings for nursing education resemble those in other education programs. However, a higher proportion of small classrooms and conference spaces is needed in nursing education buildings and in clinical facilities, and these may increase costs slightly. Laboratories may be required for special aspects of social and behavioral sciences. Biological science laboratories, libraries and dormitories should be shared with other programs whenever possible, and needed additions to these supplied.

In spite of the high costs involved, planning bodies should see to it that facilities for nurses are large enough to accommodate growing enrollments in nursing, and that limited facilities do not become obstacles to the growth of programs. Per capita costs are higher when enrollments are small.

Planning bodies should also try to keep the costs of education to students as low as possible. A large number of students in all kinds of nursing education programs require partial or total scholarships, fellowships, or loans. Planners

must estimate funds needed for this purpose and identify potential sources of such funds.

Information about financing is available from several sources. For example, the U. S. Public Health Service offers a consultation service which is particularly useful in answering questions about the availability of federal funds for planning, research, student loans, scholarships, construction of facilities, and other aspects of nursing education. In addition, the U. S. Office of Education can provide information about the programs of federal aid it administers.

EVALUATION AND CONTINUED PLANNING

Having set goals and designed action to meet them, the planning body must embark on the third stage of planning—that of evaluation. Success in planning may be measured by the extent to which the actions it generates bring to realization the goals which have been set.

When nursing education programs expand, improve, shift, and attract more students; when new programs in the right institutions begin to operate—then planners will know that their plans are working.

Three main criteria may be used to gauge success:

- *Are the right kinds of programs in the right places?*
- *Are they high quality programs?*
- *Are these programs attracting students of the quantity and quality desired?*

More specifically, a planning body may ask itself some subsidiary questions in order to evaluate more precisely the results of its planning efforts:

- Are enough well-qualified teachers being prepared for the programs in which they are needed?
- Are enough top-flight leaders, administrators and specialists being prepared?
- Is the supply of nurses achieving better balance among the professional, technical, and vocational categories?
- Is the capacity of all institutions offering nursing education expanding sufficiently to accommodate the present and projected supply of students?
- Are students enrolling in the right kinds of programs?
- Are nursing services and nursing education opportunities well distributed throughout the state?
- Are large medical centers finding the kinds and numbers of nurses they need for all their programs (many of which are highly specialized)?

- Is there a faculty development program or an in-service education program in every educational and service agency in the state?
- Is there an up-to-date continuing education program? Is its remedial function (short-term education for unqualified personnel) still needed?
- Is research paying off?

While answers to the foregoing questions help planners to evaluate past performance and shape future plans accordingly, other criteria can be used to test the success of the *process* of planning itself—to assess what can be done by the planning body to improve the results of its planning functions, if these have been disappointing in some areas.

To evaluate their planning methods, planners might ask themselves:

- Are they modifying their goals and plans in light of new trends in health and education?
- Are they modifying their plans in light of past planning successes or failures?
- Are they studying causes of slow program development and seeking ways of eliminating them?
- Is information about goals and plans reaching those persons who should be informed?
- Is there a constructive attitude toward nursing in the state?
- Is there a balance among health workers?
- What studies are needed to provide new information for continuous planning?
- Are these studies being made?

For many public and private institutions, the statewide plan will provide a sense of direction and assurance to institutional planning for nursing which may not previously have existed. On the other hand, it would be reasonable to expect that some few institutions will not elect to move in accord with the overall plan—and it is part of the American heritage to respect such decisions. But the weight of sound planning, and the public call for concerted action to prepare more and better nurses, is likely to be felt by all institutions.

Appendixes

APPENDIX A

CHAPTER NOTES

Chapter I

1. Regional education boards which have projects in nursing education are:
   Southern Regional Education Board, 130 Sixth Street, N. W., Atlanta, Georgia 30313
   Western Interstate Commission for Higher Education, University East Campus, 30th Street, Boulder, Colorado
   New England Board of Higher Education, 31 Church Street, Winchester, Massachusetts
2. This trend is clearly described and supported in *Educational Preparation for Nurse Practitioners and Assistants to Nurses, A Position Paper*. 1965. 16 pp. Available from the American Nurses' Association, 10 Columbus Circle, New York, New York 10019.

Chapter II

1. *Toward Quality in Nursing—Needs and Goals*. Report of the Surgeon General's Consultant Group on Nursing, U. S. Department of Health, Education, and Welfare; Public Health Service, 1963. 73 pp.
2. *Health Manpower Source Book*, Section 2, Nursing Personnel. U. S. Department of Health, Education, and Welfare; Public Health Service, 1966. 113 pp.
3. See *Health Manpower Source Book*, Part IV, for examples of withdrawal rates of students from schools of nursing, and Part VIII for projections of professional nurse supply.

APPENDIX B

A DESCRIPTIVE LISTING OF NURSING ORGANIZATIONS

State Nurses' Association—a state constituent of the *American Nurses' Association*, the national professional organization of nurses. The association fosters high standards of practice, professional and educational advancement, and economic welfare of nurses. It promotes federal and state legislation to improve health and nursing.

National headquarters: 10 Columbus Circle, New York, New York 10019

State League for Nursing—a state constituent of the *National League for Nursing* in all states except Alaska, Nevada, and Vermont. Individual membership is extended to all kinds of nursing personnel, related professionals, and citizens concerned with the development of nursing. Institutional and agency membership is extended to major kinds of nursing services (*e.g.*, hospitals, public health services), and to nursing education programs (practical nursing, associate degree, diploma, baccalaureate, and graduate programs). Each kind of educational program has its own council of member agencies which works for educational improvement. Each council formulates criteria and establishes boards of review for accreditation of its respective programs.

National headquarters: 10 Columbus Circle, New York, New York 10019

State Federation of Licensed Practical Nurses—a state constituent of the *National Federation of Licensed Practical Nurses*, organized in 40 states. The federation, whose members are licensed practical and vocational nurses, works for improvement of nursing and nursing education in cooperation with the American Nurses' Association and the National League for Nursing. It actively supports its state and national legislative objectives for the improvement of nursing.

National headquarters: 250 West 57 Street, New York, New York 10019

State Association for Practical Nurse Education and Service—a constituent organization of the *National Association for Practical Nurse Education and Service, Inc.*, whose membership includes practical nurses, professional nurses, and persons in related professions. It works for improvement of practical nurse education and services, and offers an accrediting service. (The number of schools seeking accreditation has been small.)

National headquarters: 535 Fifth Avenue, New York, New York 10017

APPENDIX C

SELECTED REFERENCES ON NURSING AND NURSING EDUCATION

This list of references about nursing and nursing education is limited to a few important publications from three national sources: the American Nurses' Association, the National League for Nursing, and the Public Health Service. Additional information is available from other sources mentioned in the text, including national and state nursing organizations, the American Hospital Association, and other federal agencies such as the Office of Education. Omitted from this list are books and periodical references which describe modern nursing and trends in nursing education in detail.

The following publications are available from the American Nurses' Association, 10 Columbus Circle, New York, New York 10019. A complete list of publications is available upon request.

Educational Preparation for Nurse Practitioners and Assistants to Nurses, A Position Paper. 1965. 16 pp.

A description of the position of the American Nurses' Association in regard to the directions in which the system of nursing education should move in the future in order to improve both the system of nursing education and the services of nursing practitioners.

Facts About Nursing, A Statistical Summary, 1966 Edition. 256 pp.

A comprehensive compilation of statistical information about nursing personnel in the U. S., its distribution by kinds, educational background, and employment fields. Some data about nursing education are included. Published annually.

The Nation's Nurses. 1965. 37 pp.

This 1962 inventory of professional registered nurses describes the characteristics of the nation's nurse supply and the educational preparation and areas of clinical practice of nurses. Prepared by the ANA Research and Statistics Program.

The following publications are available from the National League for Nursing, 10 Columbus Circle, New York, New York 10019. A complete list of publications of the Division of Nursing Education is available upon request.

College Education: Key to a Professional Career in Nursing. 1966. 15 pp.

Information on baccalaureate education for beginning students and for registered nurses, with a list of NLN-accredited baccalaureate programs. Issued annually by the NLN Department of Baccalaureate and Higher Degree Programs.

Criteria for the Evaluation of Educational Programs in Nursing Leading to An Associate Degree. 1962. 12 pp.

A statement of criteria formulated by junior college administrators, nursing instructors and others concerned with junior college education in nursing. These criteria are used for self-evaluation by schools and in national accreditation. Revised periodically by the NLN Council of Member Agencies of the Department of Associate Degree Programs.

Criteria for the Evaluation of Educational Programs in Nursing that Lead to Baccalaureate or Master's Degrees. 1967. 17 pp.

A statement of criteria formulated by more than 150 bachelor's degree programs and more than 40 master's degree programs. These criteria are used for self-evaluation and for national accreditation. Revised periodically by the NLN Council of Member Agencies of the Department of Baccalaureate and Higher Degree Programs.

Criteria for the Evaluation of Educational Programs in Nursing Leading to a Diploma. rev. ed., 1962. 12 pp.

A statement of criteria formulated by more than 500 schools of nursing offering diploma programs. These criteria are used by schools for self-evaluation and for national accreditation. Revised periodically by the NLN Council of Member Agencies of the Department of Diploma Programs.

"Educational Preparation for Nursing—1965" reprinted from *Nursing Outlook*, September, 1966, Vol. 14, No. 9. 4 pp.

A statistical report prepared annually by staff of the NLN Research and Studies Service on student enrollments, admissions, and graduations in practical nurse, diploma, associate degree, bachelor's degree and master's degree

programs in nursing. Every three years information on men students is included.

Guidelines for Assessing the Nursing Education Needs of a Community. 1967. 11 pp.

An outline of where, who, what and how to study the current and needed supply of nursing personnel in a community, state or region, and of steps to be taken to assure steady extension and improvement of nursing care available to people.

Master's Education: Route to Opportunities in Modern Nursing. 1966. 16 pp.

Information about master's degree programs in nursing with a list of NLN-accredited college and university master's programs in nursing, prepared by the NLN Department of Baccalaureate and Higher Degree Programs.

Perspectives for Nursing. 1965. 31 pp.

A report by the NLN Committee on Perspectives describing issues and changes under way in nursing and recommending actions to be taken by individuals, groups, agencies, and organizations which share concerns and responsibilities related to providing nursing care to people.

State Approved Schools of Nursing—R.N. 1967. 107 pp.

A listing of all schools of nursing preparing registered nurses which meet minimum requirements set by law and board rules in the various jurisdictions. Includes information about the schools as well as admissions, enrollments, and graduations. Published annually by the NLN Research and Studies Service.

State Approved Schools of Practical or Vocational Nursing. 1966. 72 pp.

A listing of all schools of practical nursing meeting minimum requirements set by law and board rules in the various jurisdictions. Includes information about the schools as well as admissions, enrollments and graduations. Published annually by the NLN Research and Studies Service.

These publications are available from the Public Health Service, USDHEW, Washington, D. C. 20201:

Health Manpower Source Book, Section 2, Nursing Personnel. (Publication Number 263.) revised January, 1966. 113 pages.

A comprehensive analysis of statistical data and study results showing numbers, trends, ratios to population of nurse supply and computations of ndeeed students and educational programs. Prepared by the Manpower Analysis and Resources Branch of the Division of Nursing, PHS.

Toward Quality in Nursing Needs and Goals, Report of the Surgeon General's Consultant Group on Nursing. 1963. 73 pp.

An analysis of national supply of nursing personnel and the educational system preparing nurses in the U. S. in 1962 with trends to that date; estimates of the numbers and quality of nursing personnel needed in 1970, characteristics of the educational system needed to supply the number of nursing personnel needed by 1970.

APPENDIX D

ABOUT THE SREB NURSING EDUCATION PROJECT

The Southern Regional Education Board was established by interstate compact as a public agency of 15 member states cooperating to improve higher education. The Board works with state governments, academic institutions, and other agencies concerned with the field of education.

Board membership consists of the governor of each compact state and four other persons appointed by him. One must be a state legislator and one an educator.

In addition to conducting cooperative programs across state lines aimed at providing better graduate, professional, and technical education in the member states, SREB serves as an information center on activities and developments affecting higher education, provides consultant services to states and institutions, and promotes or conducts studies of significant problems in higher education.

This publication is produced as a part of SREB's project in nursing education and research. The project, begun in 1962 under a grant from the W. K. Kellogg Foundation, was extended in 1966 for another five-year period. The project is especially concerned with nursing education in college-sponsored programs leading to associate, bachelor's, and master's degrees in nursing.

The SREB Council on Collegiate Education for Nursing was formed in 1963 to advise on regional activities and in 1967 included representatives from 86 colleges and universities.

The Council meets twice a year to study problems of nursing education. Other activities proposed by the Council have included conferences, workshops, committee work and publications in such areas as graduate education, continuing education, and uses of new instructional media, especially television, in nursing education.

The Council early identified statewide planning for nursing education as an essential step toward producing the number, kind, and quality of nurses needed in the region. How to promote planning for nursing in relation to other educational planning in the state was considered periodically by the Council and its committees. Further study showed the problem to be more, rather than less, complex, and the need to be greater.

The Council urgently requested SREB to publish a booklet which would provide some guidance to those key persons without whose support and assistance statewide planning and action to produce more nurses is likely to be less effective than the critical nature of the situation requires.